63D CONGRESS, 3d Session. } HOUSE OF REPRESENTATIVES. { DOCUMENT No. 1509.

18

WICOMICO RIVER, MD.

LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

WITH A LETTER FROM THE CHIEF OF ENGINEERS, REPORTS ON PRELIMINARY EXAMINATION AND PLAN AND ESTIMATE OF COST OF IMPROVEMENT OF WICOMICO RIVER, MD.

JANUARY 20, 1915.—Referred to the Committee on Rivers and Harbors and ordered to be printed, with illustration.

WAR DEPARTMENT,
Washington, January 18, 1915.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: I have the honor to transmit herewith a letter from the Chief of Engineers, United States Army, of this date, together with copies of reports from Col. Lansing H. Beach, Corps of Engineers, dated June 11 and December 3, 1914, with map, on preliminary examination and plan and estimate of cost of improvement, respectively, of Wicomico River, Md., made in compliance with the provisions of the river and harbor act approved March 4, 1913.

Very respectfully,

LINDLEY M. GARRISON,
Secretary of War.

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, January 18, 1915.

From: The Chief of Engineers, United States Army.
To: The Secretary of War.
Subject: Report on preliminary examination and plan and estimate of cost of improvement of Wicomico River, Md.

1. There are submitted herewith, for transmission to Congress, reports dated June 11 and December 3, 1914, with map, by Col. Lansing H. Beach, Corps of Engineers, on preliminary examination

and plan and estimate of cost of improvement, respectively, of Wicomico River, Md., authorized by the river and harbor act approved March 4, 1913.

2. The Wicomico River rises in Wicomico County, Md., and flows in a generally southwesterly direction a distance of about 33 miles, emptying into Monie Bay, an arm of Tangier Sound. The existing project provides for a channel 9 feet deep and of practicable width from the upper point of natural 9-foot depth to the Salisbury milldam in the North Prong and a turning basin 360 feet by 650 feet. Some shoals have developed in the lower river, and the improvement now desired is in the nature of a restoration of the channel, which has deteriorated, and an extension of the project into the South Prong, which has been dredged at private expense, and to deep water in the bay near the mouth of the river. The district officer submits estimates of cost of channels 9 and 10 feet deep, at mean low water, amounting to $17,100 and $52,200, respectively, the channels to extend from the mouth of the river in Monie Bay to the bulkheads at the upper ends of the basins in the North and South Prongs at Salisbury. Considering the small proportion of craft benefited by the greater depth, and the difference of cost involved, he believes that the present project depth of 9 feet is sufficient for the present. The channel width proposed is 100 feet at bottom in straight reaches, suitably increased at bends. To this extent he believes the locality is worthy of further improvement by the United States, on condition that suitable dumping grounds are provided by local interests. The division engineer concurs in this opinion.

3. These reports have been referred, as required by law, to the Board of Engineers for Rivers and Harbors, and attention is invited to its report herewith, dated January 5, 1915, concurring in the views of the district officer and the division engineer.

4. After due consideration of the above-mentioned reports, I concur in the views of the district officer, the division engineer, and the Board of Engineers for Rivers and Harbors, and therefore report that the further improvement by the United States of Wicomico River, Md., is deemed advisable under a revised project providing for a channel 9 feet deep at mean low water, 100 feet wide at bottom, with suitably increased width at bends, extending from deep water in Monie Bay to the head of navigation in the North and South Prongs at Salisbury, at an estimated cost of $17,100 for construction and $2,400 annually for maintenance, provided local interests will furnish free of cost to the United States suitable places for the deposit of dredged material, so protected as to prevent the return of the material to the navigable waters. The full amount of the estimate should be provided in one appropriation.

DAN C. KINGMAN,
Chief of Engineers, United States Army.

REPORT OF THE BOARD OF ENGINEERS FOR RIVERS AND HARBORS ON PLAN AND ESTIMATE OF COST OF IMPROVEMENT.

[Third indorsement.]

BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
January 5, 1915.

To the CHIEF OF ENGINEERS, UNITED STATES ARMY:

1. The following is in review of the district officer's reports of preliminary examination and plan and estimate of cost of improvement of Wicomico River, Md., submitted under authority of the act of March 4, 1913.

2. The existing project provides for a channel 9 feet deep, from the upper point of natural 9 feet depth, to the Salisbury milldam and a turning basin in the North Prong of the river. Local interests have dredged a channel 9 feet deep in the South Prong. Salisbury is the principal town on the river and lies at the head of navigation, 23 miles above the mouth of the stream. The commerce has been increasing in recent years and is reported as amounting to 381,940 tons in 1913.

3. The purpose of the present investigation appears to be the restoration of the channel, already dredged, and an extension of the project to the mouth of the river so as to cover the entire stream up to the head of navigation at Salisbury.

4. Estimates are presented for channels 9 and 10 feet in depth, 100 feet wide in straight reaches, suitably increased at the bends, extending from Great Shoals Lighthouse, at the mouth of the river, to the intersection of the north and south prongs, and an irregular width and the same depth for a short distance up each prong, the two amounts being $17,100 and $52,200, and the annual cost of maintenance for the two depths being placed at $2,400 and $4,500 respectively.

5. Considering the relatively small number of vessels that would be benefited by the 10-foot depth, as compared with the 9-foot depth and the much greater cost of the former, the district officer recommends adherence to the present approved depth of 9 feet, with an extension of the project to the mouth of the river and to the head of navigation in the South Prong. The division engineer concurs in this view.

6. It appears from the information now available, that the present project depth of 9 feet will fairly meet the demands of commerce and navigation on this stream but that the project should include the entire river to the head of navigation in each prong at Salisbury. It is believed that the cost of completing the improvement, as above outlined, is reasonable when compared with resulting benefits and therefore the board recommends a modification of the project, so as to provide a channel in the Wicomico River, 100 feet bottom width, widened at bends, and 9 feet deep, extending from deep water in the bay to the head of navigation, on the North and South Prongs at Salisbury, at an estimated cost of $17,100 for construction and $2,400 annually for maintenance, provided local interests will furnish free of cost to the United States suitable places for the deposit of dredged material, so protected as to prevent the return of the material to the navigable waters. The whole amount of the estimate should be made available in one appropriation.

7. In compliance with law, the board reports that except as contemplated by the above recommendations, there are no questions of terminal facilities, water power, or other subjects so related to the project proposed that they may be coordinated therewith to lessen the cost and compensate the Government for expenditures made in the interests of navigation.

For the board:

W. M. BLACK,
Colonel, Corps of Engineers,
Senior Member of the Board.

PRELIMINARY EXAMINATION OF WICOMICO RIVER, MD.

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
Baltimore, Md., June 11, 1914.

From: The District Engineer Officer.
To: The Chief of Engineers, United States Army
(Through the Division Engineer).
Subject: Preliminary examination of Wicomico River, Md.

1. I have to submit the following report concerning the preliminary examination of Wicomico River, Md., as directed by the river and harbor act of March 4, 1913.

2. The necessity or object of this preliminary examination is not evident, for preliminary examination was made in 1905 and 1906 under authority of the river and harbor act of March 3, 1905, and the recommendation of the district officer for a 9-foot channel, with a width of 100 feet in straight reaches and 150 feet at bends, at an estimated cost of $53,000, was approved by the Board of Engineers for Rivers and Harbors and Chief of Engineers and Secretary of War. This report is published as House Document No. 908, Fifty-ninth Congress, first session, to which attention is invited.

3. The improvement desired is really in the nature of a restoration of channel, which has deteriorated, probably due more to wash of boats than from any other cause, until vessels now have greater difficulty at certain points in the river than was experienced several years ago.

4. Salisbury, which is at the head of navigation in the Wicomico River, is about 23 miles above the mouth of the stream. It is the largest town in Maryland east of Chesapeake Bay. It has two railroads—the New York, Philadelphia & Norfolk and the Baltimore, Chesapeake & Atlantic, the latter being continued by steamboat service to Baltimore. It is the collecting and distributing point for a very large portion of the peninsula and ships all sorts of agricultural products, oysters, canned goods, flour, etc., and receives fertilizers, machinery, bricks, and general merchandise. The report of 1905 and 1906 stated that the commerce of that year amounted to more than 199,000 tons, valued at over $4,761,000, and this commerce has increased since. The town is making many improvements and growing rapidly; it is now provided with excellent terminal facilities and it should have an adequate channel to connect it with Chesapeake Bay.

5. The Wicomico has been under improvement by the United States since 1872. At that time a navigable channel, with a minimum depth of 8 feet at mean low water, extended from the mouth to a point about 2 miles below Salisbury. At that place the stream divides into several branches, each of which is closed to navigation by dams furnishing power for small mills. The lowest dam in the south prong of the Wicomico broke a few years ago, and this prong has been deepened and bulkheaded by certain interests in the city so as to provide a good business harbor. The north prong has been recently dredged by the United States so as to provide a channel 9 feet deep, with a turning basin at the upper end, pursuant to preliminary examination directed by the river and harbor act of March 3, 1909. The report is published as House Document No. 569, Sixty-first Congress, second session. These two basins will allow for the adequate handling of commerce at Salisbury, which appears to be increasing rapidly. The mean range of tide is about 3 feet. It was stated in 1905 that Salisbury "contains a shipyard and marine railway where about 100 vessels, ranging from the smallest to 125 tons, are repaired annually. The trading vessels consist of about 30 schooners with an aggregate tonnage of 2,500, a steamer of 700 tons, and many smaller schooners, sloops, and power boats. The larger vessels draw from 6½ to 10 feet, a few of them lightering cargo to Salisbury from below the mouth of the river." A line of steamers runs three times a week between Salisbury and Baltimore throughout the year, with daily trips when the freight movement requires additional vessels. Much freight originates and is delivered below Salisbury, the river throughout its length having wharves at frequent intervals.

6. The estimate of cost contained in the preliminary examination published in House Document No. 908, Fifty-ninth Congress, first session, is as follows:

41,870 cubic yards, scow measurement, of material to be excavated between Great Shoals Lighthouse and Fruitland Wharf, at 25 cents	$10,467.50	
Engineering, superintendence, and contingencies, 10 per cent.	1,046.75	
		$11,514.25
65,044 cubic yards, scow measurement, of material to be excavated from Fruitland Wharf to Salisbury, at 25 cents	16,261.00	
2,700 linear feet of dike to be constructed, at $8 per linear foot	21,600.00	
	37,861.00	
Engineering, superintendence, and contingencies, 10 per cent.	3,786.10	
		41,647.10
Total		53,161.35

Since that date, however, the policy of the department and of Congress has, it is believed, changed with regard to the construction of bulkheads, it being now considered that such structures, where necessary, should be supplied by local interests, the expense involved being paid by the locality benefited, and partaking of the nature of cooperation.

7. The district officer recently made an examination of the river, accompanied by the more prominent vessel owners and vessel masters engaged in the navigation of the stream. It is believed that the work can be accomplished without the construction of bulkheads, or where such structures are necessary they can be provided at the expense of parties benefited. At the same time it was learned that a channel

10 feet deep would be of much greater benefit to the navigation of the stream and its commerce than one of 9 feet, owing to the fact that a large portion of the trade is carried in schooners which could easily load to the greater depth, a 9-foot channel compelling them to take less than a full cargo.

8. For these reasons it is believed that the project should be changed so as to provide a 10-foot navigable channel, with a width of not less than 100 feet, from the mouth to Salisbury. It is believed that if the construction of bulkheads is not undertaken by the United States, this 10-foot channel can be secured with the same amount of money as was estimated to be necessary for the 9-foot channel in the report of 1905 and 1906, and the locality is regarded as worthy of improvement so as to provide such 10-foot channel without bulkheads.

9. Terminal facilities in the shape of proper wharves and landings have already been provided in both the south prong and the north prong of the river at Salisbury. The portion of the river covered by this report being tidal, there are no questions of water-power development, the only water-power development being at the head of navigation. There are no other subjects relating to the improvement.

LANSING H. BEACH,
Colonel, Corps of Engineers.

[First indorsement.]

OFFICE OF DIVISION ENGINEER,
EASTERN DIVISION,
New York City, June 15, 1914.

To the CHIEF OF ENGINEERS.

Concurring in the views and recommendation of the district engineer officer.

W. M. BLACK,
Colonel, Corps of Engineers.

[Third indorsement.]

BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
July 14, 1914.

To the CHIEF OF ENGINEERS, UNITED STATES ARMY.

1. For reasons stated herein, the board concurs with the district officer and the division engineer and recommends the preparation of plans and estimates of cost for depths of 9 and 10 feet, respectively, in order to determine the extent and advisability of the improvement.

For the Board.

FREDERIC V. ABBOT,
Colonel, Corps of Engineers,
Senior Member Present.

PLAN AND ESTIMATE OF COST OF IMPROVEMENT OF WICOMICO RIVER, MD.

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
Baltimore, Md., December 3, 1914.

From: The District Engineer Officer.
To: The Chief of Engineers, United States Army
(Through the Division Engineer).
Subject: Plan and estimate of cost of improvement of Wicomico River, Md.

1. In compliance with department letter of July 18, 1914, the following report, with plan and estimates of cost of improvement of Wicomico River, Md., is submitted.

2. In accordance with the third indorsement on preliminary examination report of June 11, 1914, there are submitted two estimates—the first for a channel 9 feet deep at mean low water, 100 feet wide at bottom in straight reaches, and of proper width at the bends, assumed as 150 feet for purposes of estimate, and the second for a corresponding channel 10 feet deep at mean low water from Great Shoals Lighthouse, at the mouth of the river, to the intersection of the South Prong; thence of irregular natural width to the head of navigation in both the South Prong and the North Prong. The North Prong has been dredged by the United States under appropriations by Congress to a line near the milldam, as shown on the accompanying map, under condition that a suitable bulkhead be built surrounding the basin and permission given to deposit the dredged material behind it. The South Prong has been similarly dredged by a private corporation, the Salisbury Realty Co., which has provided at its own expense the bulkhead necessary to retain the material dredged from the basin. There is no difference in character between the two basins and both are equally available for navigation and commerce. To give vessels access to the basin on the South Prong, it was necessary to change two fixed bridges, one at Camden Street, the other at Division Street. Objection was made by certain parties to the county commissioners making the changes desired, on the representation that the South Prong was not a navigable stream and that the change would be for the benefit of private parties. It was decided, however, that the stream was navigable to a point above the upper bridge, and the changes necessary to give vessels access to the basin were ordered made. There was originally no greater navigability in the North Prong Basin than in the South Prong Basin, and it is believed that both should be included in the project for the river, as they form two parts of the harbor of Salisbury. No work of construction or improvement is needed on either prong. Permission to deposit dredged material behind the bulkhead on the South Prong should be made a condition precedent to the maintenance on that basin, as has been done on the North Prong.

3. First estimate:

Great Shoals Light to Fruitland Wharf:		
12,000 cubic yards, scow measure, at 25 cents	$3,000	
Engineering, superintendence, and contingencies, 10 per cent	300	
		$3,300

Fruitland Wharf to upper end of project:		
50,000 cubic yards, scow measure, at 25 cents	$12,500	
Engineering, superintendence, and contingencies, about 10 per cent	1,300	
		$13,800
Total		17,100

Second estimate:

Great Shoals Lighthouse to upper end of project:		
190,000 cubic yards, scow measure, at 25 cents	47,500	
Engineering, superintendence, and contingencies, about 10 per cent	4,700	
		52,200

4. From the time of the adoption of that part of the existing project below the Main Street Bridge (September, 1891) to June 30, 1913, an expenditure of $27,221.13 has been made for maintenance. This is at an annual rate of about $1,300 for 21 years. That part of the project above the junction of the prongs, which is only lately completed, is estimated to require an annual expenditure of $600 for maintenance (H. Doc. No. 569, 61st Cong., 2d sess.); the south prong will probably require about $400. Adding $100 for the additional short length of dredging necessary near the mouth of the river gives an estimated annual maintenance charge of $2,400 for a channel 9 feet deep from the mouth of the river to Salisbury. A channel 10 feet deep, owing to the extended length and extra depth, would probably require nearly double the above amount, or $4,500 per annum, for maintenance.

5. Material dredged from the present project channel has been deposited in deep holes in the river below Fruitland Wharf. This has been the cause of considerable complaint. To avoid this, such material would have to be either put ashore or deposited in deep water beyond the mouth of the river. The latter method of disposal would require a haul of at least 25 miles from the upper end of the channel, and would add considerably to the cost of the work. Depositing ashore would also probably add somewhat to the cost, but not as much as towing to deep water outside of the river. Areas should, therefore, be provided at convenient points where the material could be disposed of ashore. The department is not in possession of such areas below the Main Street Bridge, and it is thought that further improvement of the river by the General Government should be made conditional upon local cooperation to the extent of providing dumping areas ashore, so protected as to prevent the return to navigable water of material deposited thereon. There are considerable areas of marshy land along the river which could be gradually reclaimed in this manner. It is not believed that such dumping grounds must be furnished immediately opposite the locality to be dredged, for this would be impossible in some cases, but convenient grounds can generally be provided within a reasonable distance.

6. A channel 10 feet deep would permit the larger schooners which now use the river to load more deeply than at present. It would have no effect upon the steamboat traffic, for which the 9-foot depth is sufficient. Considering the small proportion of craft benefited by this greater depth of all that ply upon the river, and the difference of cost involved, it is believed that the present project of 9 feet is sufficient for the present.

7. It is considered that the Wicomico River, Md., is worthy of further improvement by the United States to the extent of providing a channel 9 feet deep from the mouth of the river, in Monie Bay, to the bulkheads at the upper ends of the basins in the north and south prongs at Salisbury on condition that suitable dumping grounds are provided by local interests.

8. This recommendation does nothing more than extend to deep water of Chesapeake Bay the channel which Congress has already prescribed and made appropriations for in the upper reaches of the river and the harbor of Salisbury, the origin or destination of nearly all the commerce of the stream. It merely provides a continuous channel in the stream 9 feet deep instead of creating such a channel in the upper portions of the river and leaving the lower portion with less depth on account of the formation of a shoal which did not exist when the original project was adopted.

9. There are no questions of water power, terminal facilities, or other subjects so related to the proposed improvement as to be considered in connection therewith to lessen the cost.

LANSING H. BEACH,
Colonel, Corps of Engineers.

[First indorsement.]

OFFICE OF DIVISION ENGINEER, EASTERN DIVISION,
New York City, December 5, 1914.

To the CHIEF OF ENGINEERS.

Concurring in the views and recommendations of the district engineer officer.

W. M. BLACK,
Colonel, Corps of Engineers.

[For report of the Board of Engineers for Rivers and Harbors on plan and estimate of cost of improvement, see page 3.]

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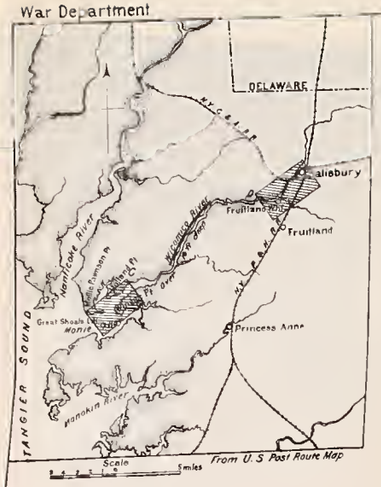
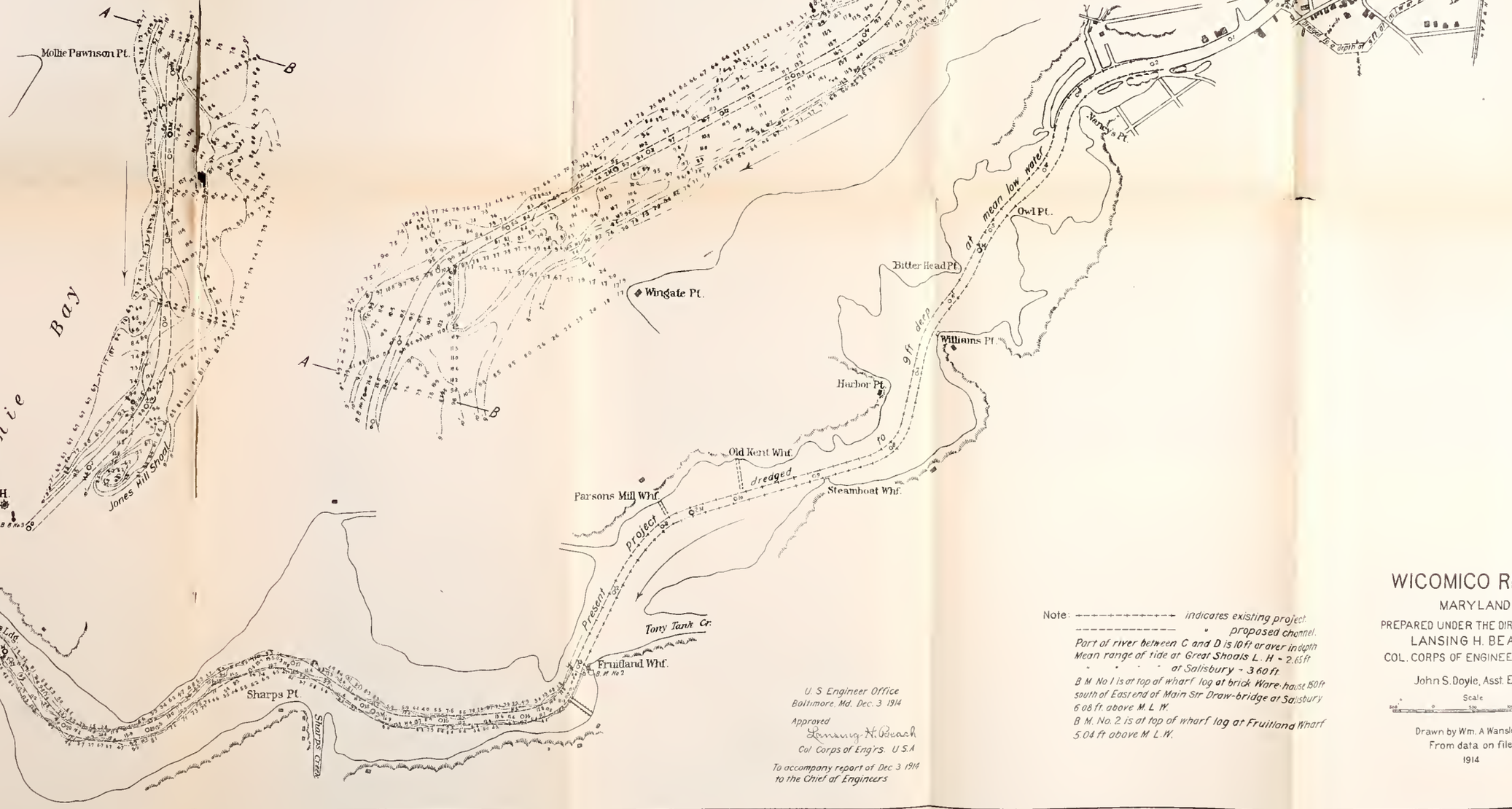
War Department

Corps of Engineers, U S Army.





U. S Engineer Office
Baltimore, Md. Dec. 3. 1914

Approved
Lansing H. Beach
Col Corps of Engrs. U.S.A

To accompany report of Dec 3 1914
to the Chief of Engineers

Note: ——+——+—— indicates existing project.
—————— " proposed channel.
Port of river between C and D is 10 ft or over in depth
Mean range of tide at Great Shoals L. H - 2.65 ft
" " " at Salisbury - 3.60 ft.
B M No 1 is at top of wharf log at brick Ware-house 150 ft south of East end of Main Str Draw-bridge at Salisbury 6.08 ft. above M. L. W.
B M. No. 2 is at top of wharf log at Fruitland Wharf 5.04 ft above M. L. W.

WICOMICO RIVER

MARYLAND

PREPARED UNDER THE DIRECTION OF
LANSING H. BEACH
COL. CORPS OF ENGINEERS, U.S.A

John S. Doyle, Asst. Engr

Scale
0 500 1000 2000 Ft

Drawn by Wm. A Wansleben
From data on file
1914

House Doc. No. 1504 63d Cong., 3d Sess.